

Master Ansible Like a Pro!

Inventory & Connection

List all hosts

```
ansible all --list-hosts
```

Ping all hosts

```
ansible all -m ping
```

Run a command on all hosts

```
ansible all -a "uptime"
```

Specify inventory

```
ansible -i inventory.ini all -m ping
```

List inventory variables

```
ansible-inventory --list
```

Ad-hoc Commands

Run shell command

- ```
ansible all -m shell -a "df -h"
```

# Copy a file to remote hosts

- ```
ansible webserver -m copy -a "src=app.conf dest=/etc/app.conf"
```

Install a package

- ```
ansible webserver -m apt -a "name=nginx state=present" -b
```

# Start a service

- ```
ansible webserver -m service -a "name=nginx state=started" -b
```

 **Tip:** Use ad-hoc commands for quick tasks without creating playbooks.

Playbooks

Run playbook

```
ansible-playbook site.yml
```

```
# Limit execution to one host
```

```
ansible-playbook site.yml --limit web1
```

```
# Check syntax
```

```
ansible-playbook site.yml --syntax-check
```

```
# Dry run
```

```
ansible-playbook site.yml --check
```

```
# Start from a specific task
```

```
ansible-playbook site.yml --start-at-task="Install packages"
```

💡 **Tip:** Always dry-run (`--check`) before production deployments. 🛡️

Secrets & Config

```
# Display changed configuration
```

```
ansible-config dump --only-changed
```

```
# Lint playbooks
```

```
ansible-lint playbook.yml
```

```
# Encrypt a secrets file
```

```
ansible-vault encrypt secrets.yml
```

```
# Decrypt
```

```
ansible-vault decrypt secrets.yml
```

```
# Run playbook with Vault
```

```
ansible-playbook site.yml --ask-vault-pass
```

💡 **Tip:** Always encrypt sensitive data with Vault. 🔒

Debugging & Facts

```
# Show all facts
```

```
ansible all -m setup
```

```
# Debug variable in playbook
```

- debug: var=app_port

Enable verbose output

ansible-playbook site.yml -v

ansible-playbook site.yml -vvv

Recommended folder structure:

project/

├── ansible.cfg

├── inventory/

| ├── dev

| └── prod

├── roles/

| └── webserver/

| ├── tasks/

| ├── templates/

| ├── handlers/

| ├── vars/

| └── defaults/

└── playbooks/

└── site.yml

Best Practices

- ☒ Use **roles** for modularity
- ☒ Keep **secrets in Vault**
- ☒ Validate with **--check** before deployment
- ☒ **Lint** playbooks to catch mistakes
- ☒ Document inventory and variables
- ☒ Use **tags** for selective task execution

